

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A method for increasing the bandwidth of a circuit switched channel in a time division multiplexed network, said channel comprising a set of time slots within each recurring frame of a bitstream of said network, said method comprising the steps of:

reserving, for said channel, one or more additional time slots within each recurring frame of said bitstream, including using, during a period of time, only said set of time slots for transmitting payload data pertaining to said channel while providing, during said period of time, information indicating that said one or more additional time slots are currently not used for transferring payload data; and

using, after said period of time, said set of time slots as well as said one or more additional time slots on said bitstream for transmitting payload data pertaining to said channel.

2. (Original) A method as claimed in claim 1, wherein said reserving step comprises providing, to one or more nodes receiving or switching said channel from said bitstream, information requesting that the one or more additional time slots are to be part of said channel.

3. (Original) A method as claimed in claim 1 or 2, comprising receiving information from one or more nodes receiving or switching said channel from said bitstream, or downstream thereof, indicating that these are ready to handle payload

data pertaining to said channel with respect to the one or more additional time slots, thereby defining the end of said period of time.

4. (Currently Amended) A method as claimed in claim 1 or 2, ~~2, or 3~~, comprising receiving information from all nodes receiving or switching said channel from said bitstream, indicating that these are ready to handle payload data pertaining to said channel with respect to the one or more additional time slots, thereby defining the end of said period of time.

5. (Original) A method for increasing the bandwidth of a circuit switched channel in a time division multiplexed network, said channel being switched from a first set of time slots within each recurring frame of a first bitstream to a second set of time slots within each recurring frame of a second bitstream, said method comprising the steps of:

receiving information requesting that one or more additional time slots within each recurring frame of the first bitstream are to be part of said channel;

reserving for said channel, in addition to the second set of time slots, one or more additional time slot within each recurring frame of the second bitstream, including using, during a period of time, only the second set of time slots for transmitting payload data mapped from the first set of time slots while providing, during said period of time, information indicating that the one or more additional time slots on said second bitstream are currently not used for transferring payload data; and

using, after said period of time, the second set of time slots as well as the one or more additional time slots on the second bitstream for transmitting payload data that is

mapped from the first set of time slot as well as the one or more additional time slots on the first bitstream.

6. (Original) A method as claimed in claim 5, wherein said reserving step comprises the step of providing, to one or more nodes receiving or switching said channel from the second bitstream, information requesting that said one or more additional time slots on said second bitstream are to be part of said channel.

7. (Original) A method as claimed in claim 5 or 6, comprising the step of receiving information from one or more nodes receiving or switching said channel from said second bitstream, or downstream thereof, indicating that they are ready to handle payload data pertaining to said channel with respect to the one or more additional time slots on the second bitstream, thereby defining the end of said period of time.

8. (Currently Amended) A method as claimed in claim 5 or 6, ~~6, or 7~~, comprising receiving information indicating that all nodes receiving or switching said channel from said bitstream, are ready to handle payload data pertaining to said channel with respect to said one or more additional time slots, thereby defining the end of said period of time.

9. (Currently Amended) A method as claimed in claim 5 or 6, ~~6, 7, or 8~~, comprising providing, at the end of or after said period of time, information acknowledging that mapping of payload data from the first set of time slots as well as the one or more additional time slots on the first bitstream to the second bitstream has been established.

10. (Currently Amended) A method as claimed in claim 5 or 6, 6, 7, 8, or 9, wherein any reconfiguring of time slot mapping from the first bitstream to the second bitstream, with respect to the time slots forming said channel, necessary as a result of the change of the amount of time slots allocated to said channel is carried out after the completion of any reconfiguring of time slot mapping performed at one or more nodes receiving or switching said channel from said second bitstream, or downstream thereof.

11. (Original) A method as claimed in claim 10, wherein said reconfiguring of time slot mapping from the first bitstream to the second bitstream, with respect to the time slots forming said channel, is further preformed before said bandwidth change is acknowledged to an upstream node being the sender of or switching said channel.

12. (Original) A method for decreasing the bandwidth of a circuit switched channel in a time division multiplexed network, said channel comprising a set of time slots within each recurring frame of a bitstream of said network, said method comprising the steps of:

using, during a period of time, only a portion of said set of time slots for transmitting payload data pertaining to said channel while providing, during said period of time, information indicating that the remaining time slots of said set of time slots are currently not used for transferring payload data; and

deallocating, after said period of time, said remaining time slots from said channel while continuing using said portion of said set of time slots for transmitting payload data pertaining to said channel.

13. (Original) A method as claimed in claim 12, comprising providing, at the start of said period of time, to one or more nodes receiving or switching said channel from said bitstream, information requesting that said remaining time slots are to be deallocated from said channel.

14. (Original) A method as claimed in claim 12 or 13, comprising receiving information, from one or more nodes receiving or switching said channel from said bitstream, indicating that they no longer consider said remaining time slots to be part of said channel, thereby defining the end of said period of time.

15. (Currently Amended) A method as claimed in claim 12 or 13, ~~13, or 14~~, comprising receiving information indicating that all nodes receiving or switching said channel from said bitstream no longer consider said remaining time slots to be part of said channel, thereby defining the end of said period of time.

16. (Original) A method for increasing the bandwidth of a circuit switched channel in a time division multiplexed network, said channel comprising a set of time slots within each recurring frame of a bitstream between a first and a second node of the network, said method comprising the steps of:

said first node allocating to said channel, in addition to said set of time slots, one or more additional time slots within each frame of said bitstream;

said first node providing, using a control channel on said bitstream, said second node with information requesting that said one or more additional time slot are to be part of said channel;

said first node, while waiting for information confirming that said one or more additional time slots may be used for providing payload data, using only said set of time slots for transmitting payload data pertaining to said channel while providing said one or more additional time slots with information indicating that they are currently not used for transferring payload data;

said second node, after having received said information requesting that said one or more additional time slot are to be part of said channel and having made any necessary arrangements for being able to handle payload data received in said one or more time slots, providing said first node, using a control channel established on a bitstream of the network, with confirmation information indicating that said second node is ready to start receiving payload data from said one or more additional time slots; and

said first node, having received said confirmation information, using said first set of time slots as well as said one or more additional time slots on said bitstream for transmitting payload data pertaining to said channel.

17. (Original) A method for changing the bandwidth of a circuit switched channel in a time division multiplexed network of the kind wherein data are transferred on bitstreams, each bitstream being divided into recurrent frames and each frame being divided into time slots, wherein an intermediate node provides mapping of time slots allocated to said channel on a first bitstream and time slots allocated to said channel on a second bitstream, said method comprising the step of:

performing, at said intermediate node, any reconfiguring of time slot mapping with respect to the time slots forming said channel at said intermediate node, required

as a result of the change of the amount or resources allocated to said channel, after the completion of any required reconfiguring of time slot mapping performed among the time slots forming said channel at a node handling said channel and being arranged downstream with respect to said intermediate node.

18. (Original) A method as claimed in claim 17, wherein said reconfiguring of time slot mapping at said intermediate node is further preformed before the bandwidth change is acknowledged to an upstream node being the sender of or switching said channel.

19. (Original) A method for increasing the bandwidth of an existing isochronous channel in a circuit switched time division multiplexed network of the kind wherein data are transferred on bitstreams, each bitstream being divided into recurrent frames and each frame being divided into time slots, said isochronous channel comprising a set of time slots within each frame of a bitstream between a first node and a second node, said method comprising the steps of:

allocating to said channel, in addition to said set of time slots, one or more additional time slots within each frame of said bitstream;

using, during a period of time, only a subset of the time slots of the enlarged set of time slots formed by said a set of time slots and said one or more additional time slots for transmitting payload data pertaining to said channel, the number of time slots in said subset of time slots not exceeding the number of time slots in said a set of time slots, and providing, during said period of time, said bitstream with information indicating

that the remaining time slots of said enlarged set of time slots are currently not used for transferring payload data; and

using, after said period of time, said a set of time slots as well as said one or more additional time slots on said bitstream for transmitting payload data pertaining to said channel.

20. (Original) A method as claimed in claim 19, wherein said step of using, during a period of time, only a subset of the time slots comprises:

using, during said period of time, only said a set of time slots for transmitting payload data pertaining to said channel and providing, during said period of time, said bitstream with information indicating that said one or more additional time slots are currently not used for transferring payload data.

21. (Original) A method as claimed in claim 19 or 20, wherein the end of said period of time is related to the reception of information indicating that one or more nodes handling said channel are ready to receive payload data pertaining to said channel from said one or more additional time slots.

22. (Currently Amended) A method as claimed in claim 19 or 20, ~~20 or 21~~, wherein said first node manages the allocation of said one or more additional time slots to said channel on said bitstream and provides said second node with information requesting that said one or more additional time slots are to be part of said channel.

23. (Original) A method as claimed in claim 22, wherein said second node, having received said information requesting that said one or more additional time slots are to be part of said channel and having made any necessary arrangements for being

able to handle payload data received in said one or more time slots, provides said first node with confirmation information indicating that said second node is ready to start receiving payload data from said one or more additional time slots.

24. (Original) A method as claimed in claim 23, wherein said period of time ends after the reception of said confirmation information at said first node.

25. (Currently Amended) A method as claimed in claim 19 or 20, ~~any one of claims 19-24~~, wherein said channel further comprises another set of time slots on another bitstream between said second node and a third node, and wherein said method comprises the further steps of:

allocating to said channel, in addition to said another set of time slots, one or more additional time slots within each frame of said another bitstream; and

providing mapping between the time slots forming said channel on said a bitstream and the time slots forming said channel on said another bitstream, as well as, or thereby providing, mapping of said information designating the time slots that are currently not used for transferring payload data.

26. (Original) A method as claimed in claim 25, wherein said further steps are performed at said second node.

27. (Original) A method as claimed in claim 26, wherein said second node, having allocated said one or more additional time slots, having established said mapping, and having made any other necessary arrangements for being able to handle payload data received in said one or more time slots, provides said first node with said confirmation information indicating that said second node is ready to start transferring

payload data from said one or more additional time slots allocated to said channel on said a bitstream.

28. (Original) A method as claimed in claim 27, wherein said feature of having made said arrangements for being able to handle payload data comprises notifying and receiving acknowledgement from said third node that said one or more additional time slots allocated to said channel on said another bitstream are now to be part of said channel.

29. (Currently Amended) A method as claimed in claim 27 ~~[[or 28]]~~, wherein said period of time ends after the reception of said confirmation information at said first node.

30. (Currently Amended) A method as claimed in claim 19 or 20, ~~any one of claims 19-29~~, wherein re-mapping to be performed with respect to the time slots forming the channel at said second node, as a result of the change of the amount of resources allocated to said channel, is carried out after the completion of any re-mapping performed among the time slots forming the channel at a node handling said channel and being arranged downstream with respect to said second node.

31. (Original) A method for increasing the bandwidth of a multicasted circuit switched channel in a time division multiplexed network, said channel comprising a set of time slots within each recurring frame of a bitstream of said network, said method comprising the steps of:

reserving, for said channel, one or more additional time slots within each recurring frame of said bitstream, including using, up to a point in time at which it has

been determined that all nodes receiving or switching said multicasted channel from, or downstream with respect to, said bitstream has made the necessary arrangements to received payload data with respect to the increased bandwidth presented by said additional time slots, only said set of time slots for transmitting payload data pertaining to said channel while providing information indicating that said one or more additional time slots are currently not used for transferring payload data; and

using, after said point in time, said set of time slots as well as said one or more additional time slots on said bitstream for transmitting payload data pertaining to said channel.

32. (Currently Amended) A method as claimed in claim 1, 2, 5, 6, 12, 13, 16, 17, 18, 19, 20, or 31, ~~any one of the preceding claims~~, wherein said information indicating that a time slot is not used for transferring payload data is provided by the step of marking said time slot as being idle.

33. (Original) A method as claimed in claim 32, wherein said step of marking said time slot as being idle comprises transmitting idle time slot identifying data, such as an identifiable code word, for said time slot.

34. (Currently Amended) A method as claimed in claim 1, 2, 5, 6, 12, 13, 16, 17, 18, 19, 20, or 31, ~~any one of the preceding claims~~, wherein said network is a Dynamic synchronous Transfer Mode (DTM) network.